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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,836	12/03/2003	Ji-Hoon Park	678-1199 (P10574)	5539

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EXAMINER

VU, MICHAEL T

ART UNIT	PAPER NUMBER
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2683

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/726,836	Applicant(s) PARK, JI-HOON	
	Examiner Michael Vu	Art Unit 2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 is/are allowed.
- 6) ☒ Claim(s) 6-14 is/are rejected.
- 7) ☒ Claim(s) 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments filed October 03, 2005 have been fully considered but they are not persuasive.

In response to applicant's argument in claims 6-14 that reference fail to teach, mention or suggest a mobile communication terminal having BOTH a first module connected to the first mobile communication network to control a call and a second module connected to the second mobile communication network to control a call.

Examiner respectfully disagrees. However, as an examiner interpreted that a mobile communication system has a first radio access networks connected with a first radio link protocol to control the data transmission, and a second radio access networks connected to a second radio link protocol to control the a call. Therefore, it would have been obvious to one of ordinary skill in the art or well known in the art. Additional, the dual-band phones (such as GSM/UMTS) are able to use either radio access network/radio link protocol and to perform handovers between them, which controlled by routing protocol. An examiner had previous pointed out on (Fig. #1, C3, L17-32 of Chow). Chow further teaches the different types of hand-off "There are four possible types of call hand-off involving the LCS system: intra-LCS intra-cell hand-offs; intra-LCS inter-cell hand-offs; hand-offs from the LCS system to the macro-cellular system; and hand-offs from the macro-cellular system to the LCS system. Intrasystem handoff is a handoff between two radio channels that are controlled by the same NSP. Intersystem handoff refers to the general procedures by which a call in progress on a radio channel

Art Unit: 2683

the control of the current serving cellular/PCS system may be automatically transferred to a different radio channel under the control of another cellular/PCS without interruption to the ongoing call. Based on the received signal quality measurements, the MS, serving system, or both can determine that there is a need to perform a handoff to another channel or cell. These three strategies are known as MS-controlled handoff, Network-controlled handoff, and MS-assisted handoff (MAHO)", (see C23, L27-44).

Additional, an Examiner has updated the search that in view of de Jong et al (US 2004/0266435) teaches a multi-mode mobile communication device that included those features.

Allowable Subject Matter

1. Claims 1 - 5 are allowed.
2. The following is an examiner's statement of reasons for allowance: Claims 1-5 are allowed over newly submitted prior art Chow, and Do, and Park, while teaching an apparatus for performing a handover between different mobile communication systems. The prior art cited fails to teach the claimed combination of features. And the examiner notes that the limitations of claim 1 are novel over the prior art of record (Chow, Do and Park). This limitations as disclosed in the specific manner of a first and second mobile communication systems are transmitting and receiving the information. The first mobile system transmitting and receiving the notification and preparation messages. And the second mobile system transmitting a page message then notify a message from the first, with transmitting a channel assignment message and receiving page respond message in form of call path. This mobile communications system is respectively using

Art Unit: 2683

a module to generate a drive command while transmit and receive message when handoff.

3. **Claim 15** is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

4. Claim 6 is objected to because of the following informalities: "missing step b". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 – 9, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow (US 6,778,832) in view of Do (US 6,321,087). [Hereafter, Chow + Do]

Regarding **claim 6**, Chow teaches a method for performing a handover between first and second mobile communication networks in a multimode multiband (MMMB) mobile communication terminal including a first module connected to the first mobile communication network to control a call and a second module connected to the second mobile communication network to control a call (Fig. #1, C3, L17-32).

- e) if the second mobile communication network transmits a page message to the second module (Fig. #5F, C18, L20-28), enabling the second module, upon receiving the page message, to transmit a page response message to the second mobile communication network (Fig. #5F, C18, L65-67 to C19, L1-15);
- f) enabling the second mobile communication network to transmit a channel assignment message to the second module (Fig. #6B, C23, L28-37);
- g) performing a handover operation (Fig. #1, L28-24-26).

However, Chow **fails to teach**, a) if the first module receives a first handover notification message from the first mobile communication network; c) enabling the first module to transmit a handover preparation message to the first mobile communication network, and d) enabling the first mobile communication network to transmit a second handover notification message to the second mobile communication network;

However, Do teaches the Intersystem handoff notification message and preparation message from mobile station with handoff across MSC boundaries (C2, L42-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to incorporate the teachings of Do in the system of Chow, to send messages to both systems for optimal handoff operations.

Regarding **claim 7**, Chow and Do teach in claim 6, but Chow **fails to teach** wherein step (g) first interrupts a call path between the first mobile communication network and the first module, and then forms a call path between the second mobile communication network and the second module. However, Do teaches interrupt the call path between the mobile station to another station (C2, L43-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Chow, such that first interrupts a call path between the first mobile communication network and the first module, and then forms a call path between the second mobile communication network and the second module to provide administration, operations and handling of calls from one network to another network before handoff when outside of the prescribed area.

Regarding **claim 8**, Chow and Do teach in claim 6, but Chow **fails to teach** wherein step (g) simultaneously interrupts a call path between the first mobile communication network and the first module and forms a call path between the second mobile communication network and the second module. However, Do teaches simultaneously the call path between the mobile stations to another station (C2, L43-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Chow, such that simultaneously interrupts a call path between the first mobile communication network and the first module and forms a call path between the second mobile communication network and the second module,

provide administration, operations and handling of calls from one network to another network before handoff when outside of the prescribed area.

Regarding **claim 9**, Chow and Do teach in claim 6, but Chow **fails to teach** wherein step (g) first forms a call path between the first mobile communication network and the first module, and then interrupts a call path between the second mobile communication network and the second module. However, Do teaches the forms of the call path between the mobile stations to another station (C2, L43-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Chow, such that first forms a call path between the first mobile communication network and the first module, and then interrupts a call path between the second mobile communication network and the second module, to provide administration, operations and handling of calls from one network to another network before handoff when outside of the prescribed area.

Regarding **claim 14**, Chow and Do teach in claim 6, but Chow **fails to teach** further comprising the step of transmitting a drive command to the second module if the second module is not driven. However, Do teaches handoff message would turn on/off the required transceiver as the mobile roams from one network to another network (C2, L43-51).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify Chow, such that further comprising the step of transmitting a drive command to the second module if the second module is not driven to control the handoff situation when transmitting and receiving messages.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10 – 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chow in view of Park (US 6,704,581). Hereafter, [Chow +Park].

Regarding **claim 10**, Chow and Do teach in claim 6, but **fails to teach** wherein the first mobile communication network is an asynchronous mobile communication network (or system), the first module is an asynchronous mobile communication module, the second mobile communication network is a synchronous mobile communication network (or system), and the second module is a synchronous mobile communication module. However, Park teaches the method for performing handoff between Asynchronous base station and Synchronous base station in the mobile telecommunication system (Title, abstract, Fig. #2A&B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to incorporate the teachings of Park in the system of Chow and Do, to modify the capable of transmitting and receiving in different types of information in the system performance.

Regarding **claim 11**, Chow and Do teach in claim 6, but **fails to teach** wherein the first mobile communication network is a synchronous mobile communication network (or system), the first module is a synchronous mobile communication module, the second mobile communication network is an asynchronous mobile communication network (or system), and the second module is an asynchronous mobile communication module.

However, Park teaches the method for performing handoff between Asynchronous base station and Synchronous base station in the mobile telecommunication system (Title, abstract, Fig. #2A&B).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to incorporate the teachings of Park in the system of Chow and Do to modify the capable of transmitting and receiving in different types of information in the system performance.

Regarding **claim 12**, the method as set forth in claim 10, the combination of Chow, Do, and Park, but Park further teaches wherein the asynchronous mobile communication system is a GSM, WCDMA, or PDC (Personal Digital Cellular) mobile communication system, and the synchronous mobile communication system is a CDMA or IS-95A/B mobile communication system (C4, L14-22 of Park).

Regarding **claim 13**, the method as set forth in claim 10, the combination of Chow, Do, and Park, but Park further teaches wherein the asynchronous mobile communication system is a GSM, WCDMA, or PDC (Personal Digital Cellular) mobile communication system, and the synchronous mobile communication system is a CDMA or IS-95A/B mobile communication system (C4, L14-22 of Park).

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571)272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Art Unit: 2683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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